### Program:
Geography, BS

### Cycle:
2016-2017

### Mission Statement:
The B.S. in Geography provides students with the fundamental geographical concepts and skills necessary to understand human and environmental processes across a range of spatial scales; it encourages students to solve geographical problems and trains them to be effective communicators. The department prepares students for employment opportunities in Texas and beyond, and provides them with the intellectual and technical foundation to become responsible global citizens and to pursue graduate study.

### Outcome/Objective

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target</th>
<th>Finding</th>
<th>Action Plan</th>
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<tbody>
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<td>Measure 1: Discuss how landforms tend towards an equilibrium morphology that depends on the frequency and magnitude of the driving forces (i.e., processes). In your answer make sure that you consider reaction and recovery of the landform to the driving processes</td>
<td>Assessment of the GEOG331 question will be 75% of geography students will score at least a 7 using the following metric: 1. Introduction of an appropriate example (river, dune, etc.) and the variation in some attribute (height, width, etc.) through time and with respect to the landscape equation (4 points) 2. Description of change through time as response and recovery from a driving force (2 points) 3. Frequency and magnitude of the driving forces (i.e., Wolman and Miller) (2 points) 4. Timescales of change and equilibrium form (i.e., Schumm and Lichty) (2 points)</td>
<td>Target: Not Reported This Cycle Not reported this year due to a change in instructor.</td>
<td>No affiliated Action Plan</td>
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<td>Measure 2: The term paper from GEOG324 - Global Climatic Regions that examines an aspect of Climate Change will be evaluated for relevant outcomes</td>
<td>Assessment of the GEOG 324 term paper will be 75% of Geography Students will score 2.5 or above on a 4 point faculty graded rubric.</td>
<td>Target: Met The target was met: 96% of the students in the fall 2016 GEOG 324 course scored 2.5 or above on a 4-point faculty graded rubric on their term paper</td>
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<td>Measure 3: The term paper in GEOG 360 - Natural Hazards which details a Natural Hazard case study will be evaluated for relevant outcomes</td>
<td>75% of Geography Students will score a 3.5 or above on a 0-5 based scale for all ten of the criteria used in the grading rubric.</td>
<td>Target: Not Reported This Cycle This measure was not reported this cycle.</td>
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<td>Measure 4: Final project in Field Geography will be evaluated for the relevant outcomes.</td>
<td>Our target is that students average more than 75% correct answers to the five specific examination questions.</td>
<td>Target: Not Met The target was no met: of the five questions considered, a population of 18 students, overall, answered only 60% of the questions correctly. However, as can be seen from the table below, the students exceeded the target for three of the questions (#2, #4b, and #4c), but did not meet the target on the other two questions (#3 and #4a). Question Responses Percent Correct 2 18 78 3 18 33 4a 18 11 4b 18 94 4c 18 83 In general, student performance suggests that most of them were able to conduct fieldwork and interpret their work in light of other information (rainfall intensity maps, published research). Comparing over the semesters suggests considerable variability from one term to the next, but does not suggest any major trends over the longer period. The reasons behind the poor performance on Questions 3 and 4a above are not known. Students were required to answer questions following the completion of fieldwork and analysis. (2) Based on comparing your infiltration rate calculations with the map for 30 minute rainfall intensity, how often does it appear that the infiltration rate might be exceeded on each type of site? (3) From your analysis do you conclude that the infiltration rate for forested sites is different from grassland sites? (4) In the Harden and Scruggs (2003) paper that you read, it was suggested that forest cover plays a major role in protecting mountain slopes from runoff and hence in helping to maintain their relatively high elevation by reducing erosion. (a) Does your analysis suggest that forest cover plays a similar role in protecting soils from erosion here on the Gulf Coastal Plain? (b) Did you observe any evidence in the field (besides your infiltration tests) indicating that erosion rates are higher on grass-covered than forested sites? (c) What other processes besides infiltration rate might influence the relative rates of erosion between the forested and grassland sites?</td>
<td>No affiliated Action Plan</td>
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Outcome 3: Graduates will comprehend the concepts on which analytical tools for spatial analysis are based and use geographic information science to interpret, represent, and solve geographic problems

Measure 5: Cartographic Overlay/site location lab in GEOG390 will be evaluated for relevant outcomes using a rubric.

Target: Met
Target was met as 6/7 (85%) of GEOG students completing the Cartographic Overlay exercise in GEOG 390 in Fall 2016 received a 2.5 or above on the 4.0 scale develop rubric. This is consistent with the finding that 16 out of 20 GISI students (80%) met the target.

No affiliated Action Plan

Outcome 4: Graduates will express geographic concepts in writing, speaking and graphically to discipline-specific and general audiences

Measure 6: A subset of the term papers and writing assignments from the department’s writing intensive courses will be will be evaluated by faculty using standard rubrics.

Target: Not Met
Target was not met: 3/7 (43%) of GEOG students (and 3/7 (43%) of GISI students) achieved a 2.5 or above on the 4.0 scale research paper rubric for the Plant Geography course (GEOG 435). Further investigation revealed that the most problematic criteria of the research paper focused on the following:
(a) Does it reference appropriate literature? (b) does it paraphrase well, and integrate and interpret multiple references to tell the author's story?

Based on the assessment results for writing from GEOG 434 (Plant Geography), the department will work to expose our students earlier in their undergraduate program to discipline-specific writing. This will be achieved by having faculty provide examples and emphasizing discipline-specific aspects of writing to students in our introductory courses.

No affiliated Action Plan

Measure 7: Oral presentations in selected classes will be evaluated by outside faculty using standard rubrics.

Target: Met
All of the GEOG students in GEOG 352 scored at least 3.2 out of 4 on the rubric, and 92% of GEOG 324 students scored 2.5 or above on the 4.0 scale rubric.

No affiliated Action Plan

Measure 8: Final project from GEOG 332: Thematic Cartography will be evaluated for the relevant outcomes using a developed rubric.

Target: Met
All 18 (100%) of the GEOG students completing the final cartography project received a 2.5 or above on the 4.0 rubric-based scale.

(Analysis Question #1) Consider the Findings and the Action Plan(s) established this cycle. How did the program/unit identify these next steps for action? Why does the program/unit believe this Action Plan(s) should improve future assessment results?

In the assessment of our program for 2016-2017, many of the measured targets were met. Therefore, no substantial curricular changes appear to be necessary. However, as evidenced by the measures and findings describing students’ ability to express geographic concepts orally, in writing, and graphically, the student writing from selected W courses (specifically GEOG 435–Plant Geography) indicated that the writing target was still not met. The continuing challenges are with the two following criteria for their research paper: (a) does it reference appropriate literature? (b) does it paraphrase well, and integrate and interpret multiple references to tell the author's story? Therefore, we have created a new action plan to introduce students to discipline-specific writing much sooner in their undergraduate careers. If students are already exposed to proper techniques regarding citation of the literature and referring to the work of others in some of their introductory courses, this should lead to better expression of geographic concepts in writing once students enroll in their upper-level writing courses.

An additional finding of this assessment cycle was that the target for students’ ability to collect, analyze, and interpret data, was not met. However, based on long-term tracking of this assessment measure by comparing the findings over the past 7 semesters, considerable variability is evident from one term to the next, with no major trends over the longer period. No new action plan is therefore warranted at this time, but we will inform the instructors to provide a better background on data interpretation.

(Analysis Question #2) Provide an update for completed or ongoing action plans from the previous year(s). Discuss any successes, challenges, and/or obstacles the program/unit has experienced while implementing the Action Plan(s). Address whether or not the program/unit has seen any improvement in assessment results for the targeted Outcome(s) the Action Plan(s) were designed to address and why the action plan may/may not have resulted in improvements.

Because students continue to be challenged by proper citation of the scientific literature and properly, we have moved the action plan item "improve students’ ability to cite literature in their writing" from planned to in progress. This will be an ongoing objective in our lower-division courses where instructors will be tasked with introducing students to proper referencing of the scientific literature, and how to integrate the ideas of multiple sources when representing the ideas of others. As students continue to pay attention to these writing elements, our program will have better success with improved expression of geographic concepts in writing by the time the students complete their writing intensive courses.

Our in progress action plan items continue to be an active focus of our program. We were not able to assess certain criteria due to a change in instructors. Our program saw a substantial turnover in our faculty over the past year, with a number of retirements, departures, and also the addition of 6 new hires. This turnover in faculty has impacted our ability to collect assessment data, but provides an opportunity for ensuring that our program objectives are being met, as these new instructors are onboard. As part of this influx of instructors, we are also exploring the possibility of implementing a longitudinal pre- and post-program student assessment, with a required program ‘entrance’ and ‘exit’ exercise. This will allow us to gauge our program objectives in terms of the students’ ability to describe dynamic interactions, interpret data, comprehend concepts in spatial analysis, and express these geographic concepts in writing.